NTP
National Toxicology Program

National Toxicology Program Update

John R. Bucher, Ph.D.

Associate Director, NTP

National Institute of Environmental Health Sciences

NTP Board of Scientific Counselors

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Outline

- Staff additions
- Selected program initiatives/updates
  - Progress on communicating public health significance/messages
  - Changes to NTP agency interactions
- Upcoming meetings

Staff Changes

- Welcome
  - Dr Cynthia Rider, Toxicology Branch
  - Danica Andrews, Office of Policy, Liaison and Review
  - Dr. Elizabeth Maull, Biomolecular Screening Branch (detail)
  - Laura Hall, Program Operations Branch (detail)
- Farewell
  - No one, for a change

Responsibility for Scientific and Public Health Context

- Problem
  - High content data, HTS, genomics, Toxicology in the 21st Century
  - New criteria for non-cancer endpoints
  - Societal expectations
- Solution
  - Internal discussions
  - Board of Scientific Counselors discussions
  - Executive Committee deliberations
- Expected outcome
  - Changes in organizational structure
  - Changes in programmatic expectations

Responsibility for Scientific and Public Health Context
(continued)

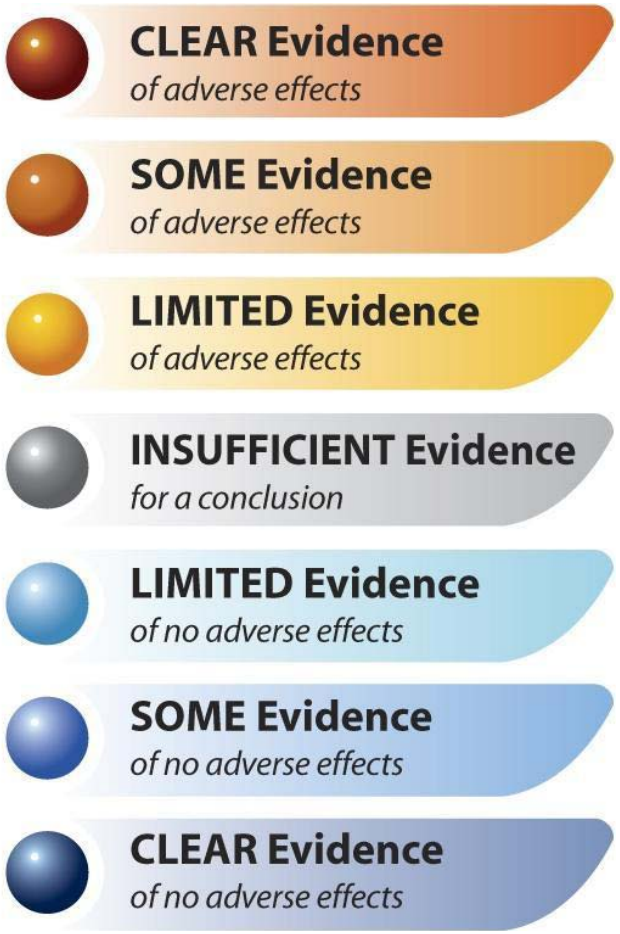
- Progress
  - New hires: many
  - New processes, products, and scope for Center for the Evaluation of Risks to Human Reproduction (CERHR)
  - Streamlining Report on Carcinogens (RoC) review process
  - New partners in Tox 21
  - Targeted testing
  - Herbals/Dietary supplement coordination with FDA
  - International Cooperation on Alternative Toxicological Methods
- Outcome
  - Improved public understanding

Improving Public Health Communication: Working Group on "Weight/Strength of Evidence" Framework and "Magic Words"

- Increase transparency and consistency across NTP products
- Improve hazard/risk communication
- Provide context relative to hazard identification approaches used by NTP and others
  - Consider CERHR descriptors in the context of other NTP hazard identification documents, i.e., individual toxicity studies, RoC
  - Consider approaches used by other organizations, Globally Harmonized System, etc.

Weight of Evidence for Adverse Effects

- 7-point hazard identification scale
- Human and animal data considered separately
- Conclusions reached on case by case basis



CERHR Weight of Evidence Categories versus Level of Evidence Criteria Used for Individual NTP Studies

CERHR Weight of Evidence Categories Based on Literature Review (1998)

- *Clear evidence* of adverse effects
- *Some evidence* of adverse effects
- *Limited evidence* of adverse effects
- *Insufficient evidence* for a conclusion
- *Limited evidence* of no adverse effects
- *Some evidence* of no adverse effects
- *Clear evidence* of no adverse effects

Levels of Evidence Criteria for Individual NTP Studies (2009)

- *Clear evidence* of toxicity
- *Some evidence* of toxicity
- *Equivocal evidence* of toxicity
- *No evidence* of toxicity
- Inadequate study

Some Options: Which should NTP adopt?

- Keep current CERHR weight of evidence descriptors but make more similar to level of evidence criteria for individual NTP studies?
- Adopt Interagency for Research on Cancer terminology?
  - Carcinogenic to humans, probably, possibly, not classifiable, probably not
- Adopt Globally Harmonized System terminology?
  - Category 1A = “known”, 1B = “presumed”, Category 2 = “suspected”
- Adopt RoC terminology?
  - “Known” or “reasonably anticipated”
- Adopt University of California-San Francisco Navigation guide terminology?
  - “Known”, “probably”, “possibly”, “not classifiable”, “probably not toxic”

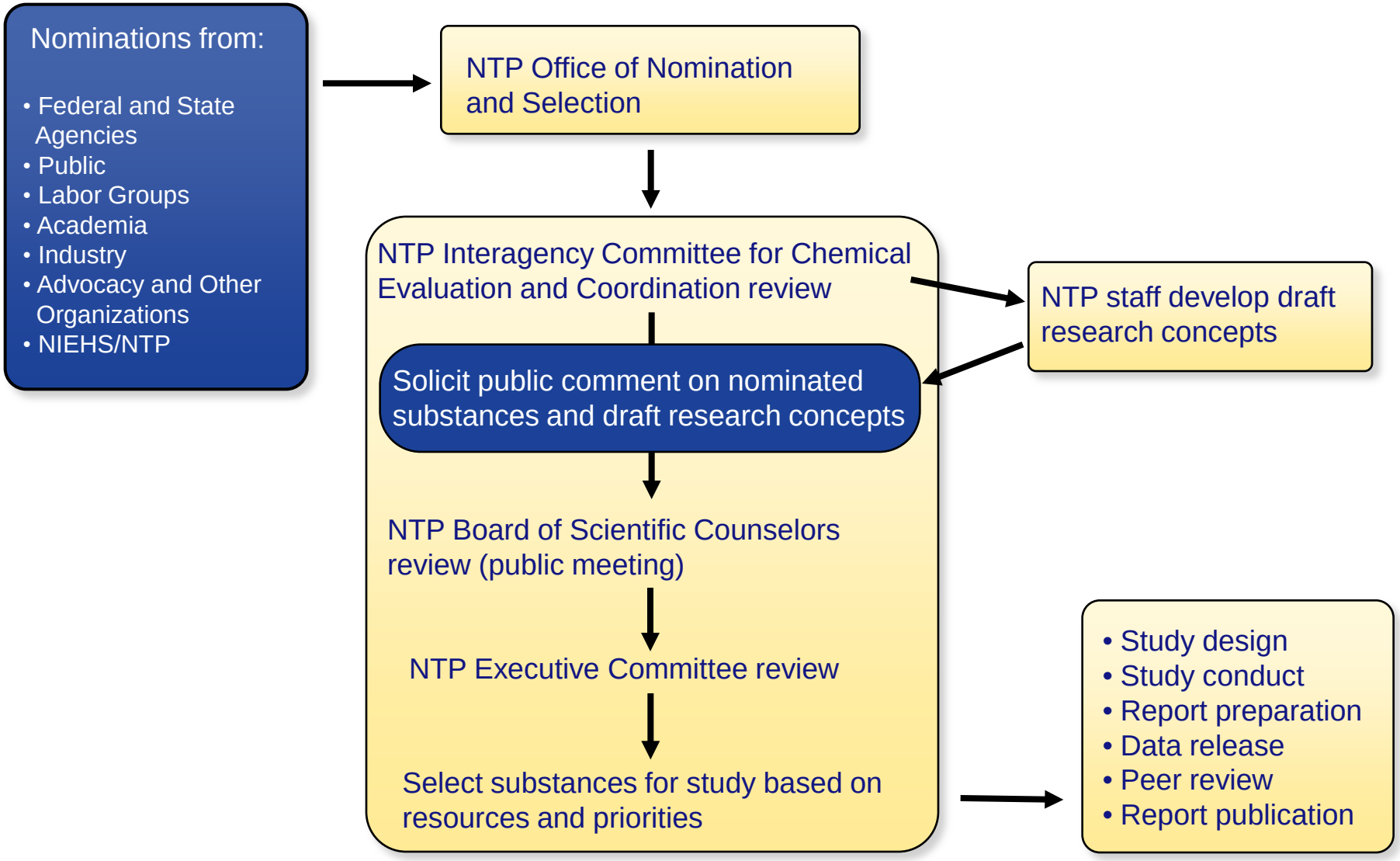
Timeline

- Summer 2010: Develop draft descriptors for “weight/strength of evidence” conclusions
- Fall 2010: Convene working group to address CERHR descriptors for “weight of evidence” conclusions
- Most likely address descriptors of “weight of evidence” and “level of concern” (or something analogous) in separate steps
- Winter 2010: Link framework with RoC listing criteria and listing categories as part of process revisions

Current Formal NTP Interagency Interactions

- Interagency Committee for Chemical Evaluation and Coordination
  - CPSC, DoD, EPA, FDA/NCTR, NCEH/ATSDR, NCI, NIEHS, NIOSH, OSHA
- Core Committee for CERHR
  - CDC/NCBDDD, CPSC, FDA, NIEHS, NIOSH
- Interagency Scientific Review Group for the RoC
  - ATSDR, CPSC, EPA, FDA/NCTR, NCI, NIOSH, NIEHS, OSHA
- Interagency Coordinating Committee on the Validation of Alternative Methods
  - ATSDR, CPSC, DoD, DoE, DoI, DoT, EPA, FDA, NCI, NIH, NIEHS, NIOSH, NLM, OSHA, USDA

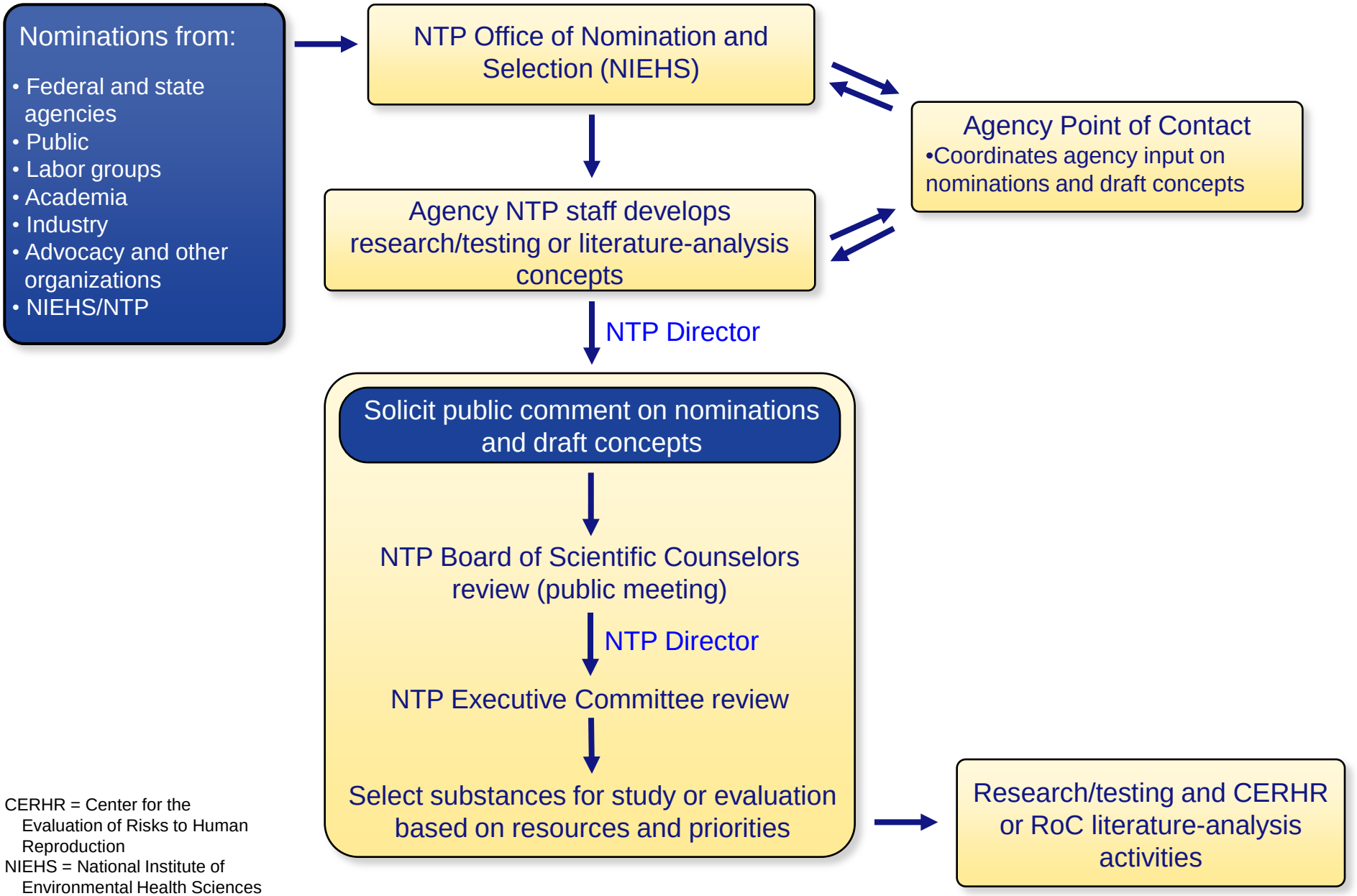
Current NTP Study Nomination Review Process



Agency Point of Contact (POC)

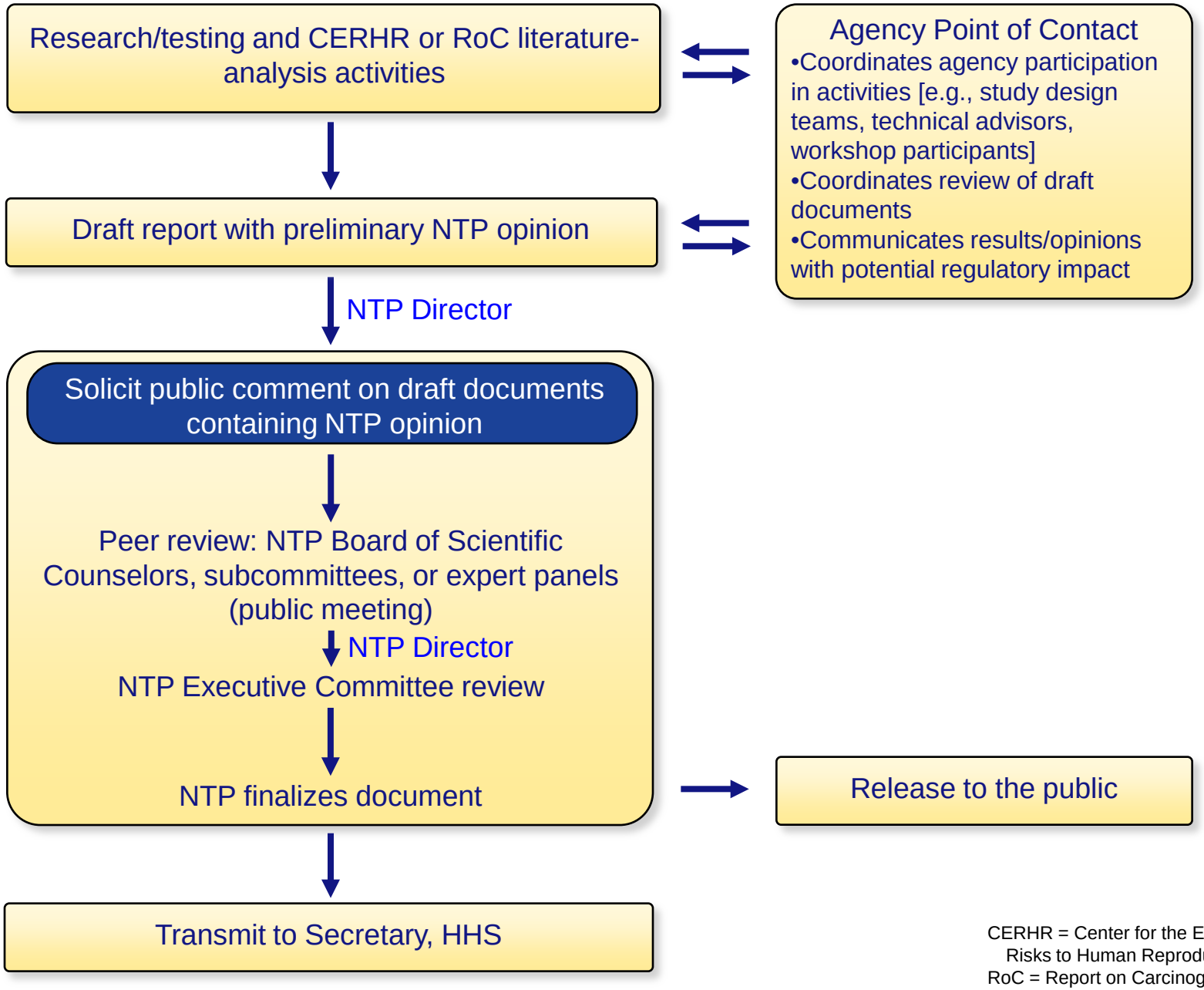
- Agency POC
  - Dedicated responsibility and time commitment
  - Knowledgeable about NTP mission and programs
  - Knowledgeable about agency resources and expertise
  - Willing to elicit staff cooperation and contributions
- Advantages
  - Streamlines processes by coordinating with NIEHS/NTP design and review steps
  - Brings most relevant agency expertise to bear
  - Provides wider agency staff participation
- Disadvantages
  - Removes formal committees and potentially limits institutional memory

Proposed Review Process for Nominations to NTP



CERHR = Center for the Evaluation of Risks to Human Reproduction
NIEHS = National Institute of Environmental Health Sciences
RoC = Report on Carcinogens

Proposed Review Process for Draft Documents Containing NTP Opinion



CERHR = Center for the Evaluation of Risks to Human Reproduction
RoC = Report on Carcinogens

Upcoming Meetings

- Board of Scientific Counselors
  - Oct 12-13, 2010: Review of Biomolecular Screening Branch and Tox 21
  - Dec 6-7, 2010
- CERHR
  - Jan 11-13, 2011: Role of Environmental Chemicals in Development of Diabetes and Obesity Workshop
  - Feb-March 2011: Expert panel peer review of low-level lead evaluation
- Technical Reports Review Subcommittee - Jan 25-26, 2011
  - AIDS therapeutics (transplacental and GMM studies)
  - Acrylamide, glycidamide
  - Aloe vera
  - Retinyl palmitate/retinoic acid
  - Kava kava extract
  - Senna
  - SAN trimer
  - Alpha/beta thujone